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TITLE: Detection of analytes
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                         Nikolaitchik, Alexandre V.; Ullman, Edwin F.
PATENT ASSIGNEE(S):   Sensors for Medicine and Science, Inc., USA
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                         CODEN: PIXXD2
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FAMILY ACC. NUM. COUNT: 2
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002054067	A2	20020711	WO 2002-US201	20020104
WO 2002054067	A3	20030522		

    W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
        CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
        GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
        LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
        PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
        UA, UG, UZ, VN, YU, ZA, ZM, ZW
   RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
        KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
        GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
        GN, GQ, GW, ML, MR, NE, SN, TD, TG

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002094586	A1	20020718	US 2001-754219	20010105
US 2002119581	A1	20020829	US 2001-28331	20011228
CA 2433904	A1	20020711	CA 2002-2433904	20020104
EP 1350102	A2	20031008	EP 2002-714690	20020104

    R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
       IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004528537	T	20040916	JP 2002-554715	20020104
BR 2002006318	A	20060124	BR 2002-6318	20020104

PRIORITY APPLN. INFO.:   US 2001-754219   A 20010105
                                      US 2001-28331   A 20011228
                                      WO 2002-US201   W 20020104

AB   Disclosed are methods for detecting analytes, such as sugars, indicator
     systems which may undergo a mol. configurational change upon exposure to
     the analyte. The configurational change affects a detectable quality,
     such as fluoroscence associated with the indicator system, thereby allowing
     detection of the presence or concentration of the analyte.
IT   440665-91-8P 440666-20-6P 440666-24-0P
     440666-26-2P 440666-27-3P
     RL: ARU (Analytical role, unclassified); SPN (Synthetic preparation); ANST
     (Analytical study); PREP (Preparation)
        (detection of analytes)
RN   440665-91-8 CAPLUS
CN   Boronic acid, [2-[[[[4-[[[(2-boronophenyl)methyl][2-[6-(butylamino)-1,3-
     dioxo-1H-benz[de]isoquinolin-2(3H)-yl]ethyl]amino]methyl]phenyl]methyl][[4-
     (dimethylamino)phenyl]methyl]amino]methyl]phenyl]- (9CI) (CA INDEX NAME)
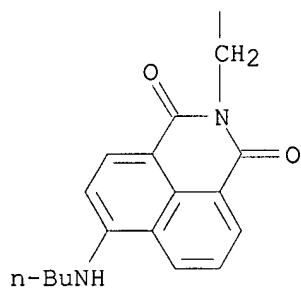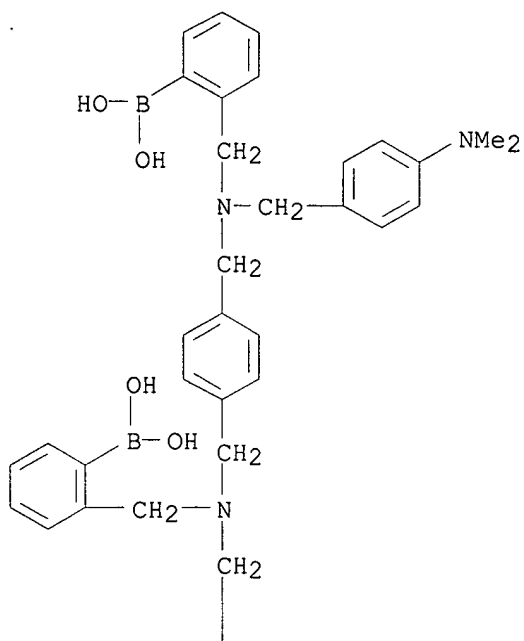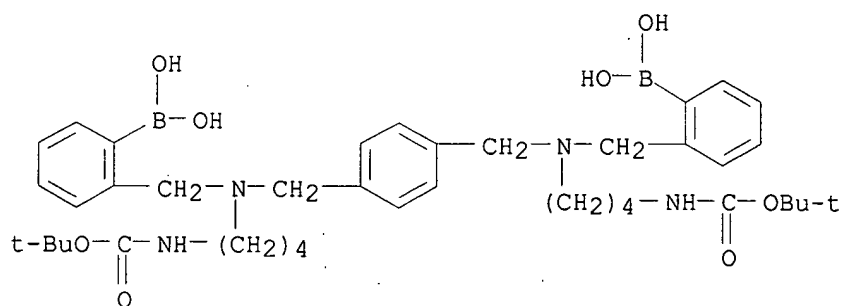
RN   440666-20-6 CAPLUS
CN   β-Alanine, N,N'-[9,10-anthracenediylbis(methylene)]bis[N-[(2-
       boronophenyl)methyl]- (9CI) (CA INDEX NAME)
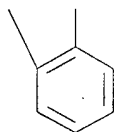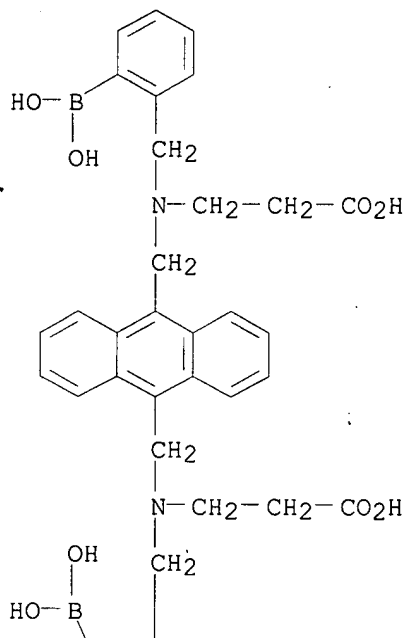
RN   440666-24-0 CAPLUS
CN   Carbamic acid, [1,4-phenylenebis[methylene[[(2-boronophenyl)methyl]imino]-
      4,1-butanediyl]]bis-, C,C'-bis(1,1-dimethylethyl) ester,
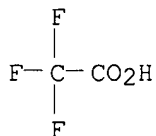   bis(trifluoroacetate) (9CI)   (CA INDEX NAME)

      CM   1

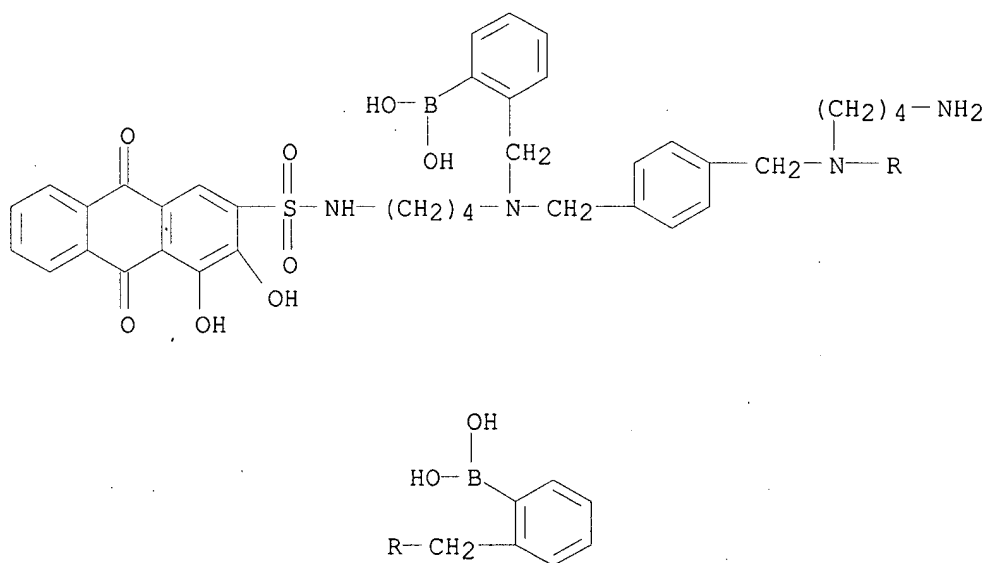   CRN   440666-23-9
      CMF   C40 H60 B2 N4 O8

      CM   2

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CRN   76-05-1
CMF   C2 H F3 O2
```

$$F-\underset{\underset{F}{|}}{\overset{\overset{F}{|}}{C}}-CO_2H$$

```
RN    440666-26-2  CAPLUS
CN    Boronic acid, [2-[[[[4-[[(4-aminobutyl)[(2-boronophenyl)methyl]amino]methy
      l]phenyl]methyl][4-[[(9,10-dihydro-3,4-dihydroxy-9,10-dioxo-2-
      anthracenyl)sulfonyl]amino]butyl]amino]methyl]phenyl]-,
      mono(trifluoroacetate) (salt) (9CI)   (CA INDEX NAME)

      CM    1

      CRN   440666-25-1
      CMF   C44 H50 B2 N4 O10 S
```
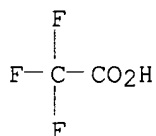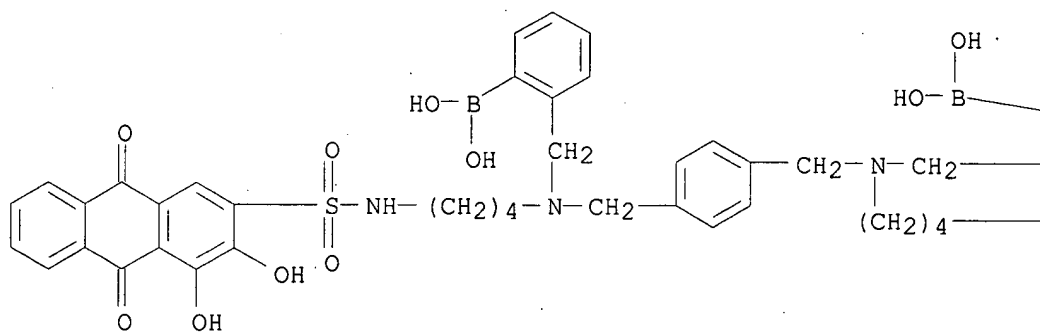


```
      CM    2

      CRN   76-05-1
      CMF   C2 H F3 O2
```

$$F-\underset{\underset{F}{|}}{\overset{\overset{F}{|}}{C}}-CO_2H$$

```
RN    440666-27-3  CAPLUS
CN    Boronic acid, [2-[[[[4-[[[(2-boronophenyl)methyl][4-[[(9,10-dihydro-3,4-
      dihydroxy-9,10-dioxo-2-anthracenyl)sulfonyl]amino]butyl]amino]methyl]pheny
      l]methyl][4-[(2-methyl-1-oxo-2-propenyl)amino]butyl]amino]methyl]phenyl]-
```

$$HO-B \begin{matrix} OH \\ | \end{matrix}$$

$$HO \quad B \quad \begin{matrix} OH \\ | \end{matrix}$$

CH₂—N—CH₂

(CH₂)₄

$$S-NH-(CH_2)_4-N-CH_2$$

O   O   OH   OH

—NH—C—C—Me
        ‖   ‖
        O   CH₂